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 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
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 NEWS  4  Apr 09   ZDB will be removed from STN
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 NEWS 12  Jul 02   FOREGE no longer contains STANDARDS file segment
 NEWS 13  Jul 22   USAN to be reloaded July 28, 2002;
                   saved answer sets no longer valid
 NEWS 14  Jul 29   Enhanced polymer searching in REGISTRY
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 NEWS 16  Aug 08   CANCERLIT reload
 NEWS 17  Aug 08   PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS 18  Aug 08   NTIS has been reloaded and enhanced
 NEWS 19  Aug 19   Aquatic Toxicity Information Retrieval (AQUIRE)
                   now available on STN
 NEWS 20  Aug 19   IFIPAT, IFICDB, and IFIUDB have been reloaded
 NEWS 21  Aug 19   The MEDLINE file segment of TOXCENTER has been reloaded
 NEWS 22  Aug 26   Sequence searching in REGISTRY enhanced
 NEWS 23  Sep 03   JAPIO has been reloaded and enhanced
 NEWS 24  Sep 16   Experimental properties added to the REGISTRY file
 NEWS 25  Sep 16   Indexing added to some pre-1967 records in CA/CAPLUS
 NEWS 26  Sep 16   CA Section Thesaurus available in CAPLUS and CA
 NEWS 27  Oct 01   CASREACT Enriched with Reactions from 1907 to 1985
 NEWS 28  Oct 21   EVENTLINE has been reloaded
 NEWS 29  Oct 24   BEILSTEIN adds new search fields
 NEWS 30  Oct 24   Nutraceuticals International (NUTRACEUT) now available on STN
 NEWS 31  Oct 25   MEDLINE SDI run of October 8, 2002

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FILE 'HOME' ENTERED AT 20:46:36 ON 07 NOV 2002

=> file medline uspatfull
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FILE 'MEDLINE' ENTERED AT 20:46:57 ON 07 NOV 2002

FILE 'USPATFULL' ENTERED AT 20:46:57 ON 07 NOV 2002
CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

=> e zaia j a/au
E1            2     ZAIA I F/AU
E2           21     ZAIA J/AU
E3           92 --> ZAIA J A/AU
E4            1     ZAIA JOHN/AU
E5           14     ZAIA JOHN A/AU
E6            1     ZAIA JOSEPH/AU
E7            2     ZAIA L/AU
E8            4     ZAIA P/AU
E9            1     ZAIA P A/AU
E10           1     ZAIA T B/AU
E11           3     ZAIA W/AU
E12           6     ZAIAC M/AU

=> s e3
L1           92 "ZAIA J A"/AU

=> e hawkins g/au
E1            1     HAWKINS FRANK H/AU
E2            1     HAWKINS FRED B/AU
E3            7 --> HAWKINS G/AU
E4           17     HAWKINS G A/AU
E5            1     HAWKINS G C/AU
E6            2     HAWKINS G D/AU
E7            7     HAWKINS G E/AU
E8            1     HAWKINS G F/AU
E9            1     HAWKINS G G/AU
E10           1     HAWKINS G L JR/AU
E11           4     HAWKINS G M/AU
E12           1     HAWKINS G P/AU

=> s e3
L2            7 "HAWKINS G"/AU

=> s l1 not l2
L3           92 L1 NOT L2

=> s (cytomegalovirus or cmv)
L4        40437 (CYTOMEGALOVIRUS OR CMV)

=> s (mutant? or mutation?)
L5       381764 (MUTANT? OR MUTATION?)

=> s pp65
L6          469 PP65

=> s l4 and l5
L7        10575 L4 AND L5

=> s l6 and l7
L8           46 L6 AND L7

=> s l8 and l3
L9            2 L8 AND L3

=> s protein(w)kinase?
L10       94963 PROTEIN(W) KINASE?
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09/815,330

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=> d l11 1-6 bib ab

L11 ANSWER 1 OF 6 MEDLINE
AN 2001214709 MEDLINE
DN 21108956 PubMed ID: 11166885
TI Site-directed **mutation** in a conserved kinase domain of human **cytomegalovirus-pp65** with preservation of cytotoxic T lymphocyte targeting.
AU Yao Z Q; Gallez-Hawkins G; Lomeli N A; Li X; Molinder K M; Diamond D J; Zaia J A
CS Department of Virology, Beckman Research Institute of the City of Hope, 1500 East Duarte Road, Duarte, CA 91010, USA.
SO VACCINE, (2001 Feb 8) 19 (13-14) 1628-35.
Journal code: 8406899. ISSN: 0264-410X.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200104
ED Entered STN: 20010425
Last Updated on STN: 20010425
Entered Medline: 20010419
AB The major target of human **cytomegalovirus** (**CMV**)-specific cytotoxic T lymphocytes (CTL) is the tegument protein CMVpp65. However, this protein has **protein kinase** (PK) activity, and the unknown effects on cell replication of an exogenous PK in healthy cells could limit the use of CMVpp65 as a vaccine, especially in children. In this report we show that a point **mutation** converting lysine to asparagine at the invariant lysine (K436), an essential site for phosphotransfer, abolishes the threonine kinase activity. The **mutant** CMVpp65 maintains its immunologic target characteristics, including antibody and CTL reactivity. This kinase-deficient CMVpp65 is a candidate for evaluation in future **CMV** vaccine development.

L11 ANSWER 2 OF 6 MEDLINE
AN 1999099039 MEDLINE
DN 99099039 PubMed ID: 9882353
TI Polo-like kinase 1 as a target for human **cytomegalovirus pp65** lower matrix protein.
AU Gallina A; Simoncini L; Garbelli S; Percivalle E; Pedrali-Noy G; Lee K S; Erikson R L; Plachter B; Gerna G; Milanesi G
CS Istituto di Genetica Biochimica ed Evoluzionistica, Consiglio Nazionale delle Ricerche, Pavia, Italy.
NC CA42580 (NCI)
SO JOURNAL OF VIROLOGY, (1999 Feb) 73 (2) 1468-78.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199902
ED Entered STN: 19990301

Last Updated on STN: 20020420
Entered Medline: 19990218

AB Human **cytomegalovirus** (HCMV) **pp65** protein is the major constituent of viral dense bodies but is dispensable for viral growth in vitro. **pp65** copurifies with a S/T kinase activity and has been implicated in phosphorylation of HCMV IE1 immediate-early protein and its escape from major histocompatibility complex 1 presentation. Furthermore, the presence of **pp65** correlates with a virion-associated kinase activity. To clarify the role of **pp65**, yeast two-hybrid system (THS) screening was performed to identify **pp65** cellular partners. A total of 18 out of 48 yeast clones harboring cDNAs for putative **pp65** binding proteins encoded the Polo-like kinase 1 (Plk1) C-terminal domain. Plk1 behaved as a bona fide **pp65** partner in THS control crosses, and the interaction was confirmed by in vitro binding experiments. Endogenous Plk1 was coimmunoprecipitated with **pp65** from transiently transfected COS7 cells. In infected fibroblasts, Plk1 was coimmunoprecipitated with **pp65** at late infection stages. Furthermore, Plk1 was detected within wild-type HCMV particles but not within the particles of a **pp65**-negative **mutant** (RVAd65). The hydrophilic region of **pp65** was phosphorylated in vitro by Plk1. These results suggest that one function of **pp65** may be to capture a cell kinase, perhaps in order to alter its activity, nucleotide preference, substrate specificity, or subcellular localization to the advantage of HCMV.

L11 ANSWER 3 OF 6 MEDLINE
AN 92292270 MEDLINE
DN 92292270 PubMed ID: 1318413
TI Human **cytomegalovirus** contains a tegument protein that enhances transcription from promoters with upstream ATF and AP-1 cis-acting elements.
AU Liu B; Stinski M F
CS Department of Microbiology, College of Medicine, University of Iowa, Iowa City 52242.
NC AI 13562 (NIAID)
HD 19937 (NICHD)
SO JOURNAL OF VIROLOGY, (1992 Jul) 66 (7) 4434-44.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199207
ED Entered STN: 19920724
Last Updated on STN: 19920724
Entered Medline: 19920710

AB The tegument proteins of human **cytomegalovirus** are introduced into cells as components of infectious virus. The tegument proteins may affect viral and cellular transcription prior to the synthesis of the immediate-early viral regulatory proteins. The phosphorylated tegument protein of 71 kDa (pp71) is reported to be encoded by the UL82 gene. The UL82 gene products transactivated promoters containing upstream ATF or AP-1 binding sites. In contrast, the phosphorylated tegument protein of 65 kDa (**pp65**), encoded by the UL83 gene, had no detectable effect on these promoters. Enhancement by UL82 of downstream transcription was directly proportional to the number of upstream ATF sites. Response to UL82 transactivation was abolished by **mutation** of the ATF site. **Mutation** in the carboxy-terminal region of UL82 also eliminated transactivation. Even though the major immediate-early promoter of human **cytomegalovirus** is a strong enhancer-containing promoter, UL82 further enhanced its transcription as much as 20-fold. The mechanism of UL82 enhancement of transcription from viral or cellular promoters is not known, but the enhancement may be mediated by triggering one of the **protein kinase** signaling pathways, increasing the

affinity of ATF or AP-1 for the target sequence, or stabilizing the complex between the eucaryotic transcription factor and the target sequence.

L11 ANSWER 4 OF 6 USPATFULL
AN 2002:198588 USPATFULL
TI IDENTIFICATION OF GENE SEQUENCES AND GENE PRODUCTS AND THEIR SPECIFIC FUNCTION AND RELATIONSHIP TO PATHOLOGIES IN A MAMMAL
IN JENBOUBI, MONCEF, BETHESDA, MD, UNITED STATES
PI US 2002106688 A1 20020808
AI US 1997-906487 A1 19970805 (8)
DT Utility
FS APPLICATION
LREP LYON & LYON LLP, 633 WEST FIFTH STREET, SUITE 4700, LOS ANGELES, CA, 90071
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 3380
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention includes a basic method for discovering the function of gene and their corresponding gene products relative to a specific biological process or physiological condition. The invention provides the ability to develop therapeutic and diagnostic agents using the information obtained from the practice of the basic method. In the method, the gene product of a selected polynucleotide is delivered to a mammal to provide an immune response. The polynucleotide sequences may express, in vivo by immunization of an animal, or in bacterial system or other known system for expression of a polynucleotide sequence. The sera resulting from immunization with the gene product contains antibodies to the gene product which are used in function determinative assays to determine the function of the gene sequence gene product relative to a biological process or physiological condition, typically a disease in a human. The information derived from the function determinative assay enables the discovery of novel genes and gene products and provides the ability to design and/or manufacture of therapeutic or diagnostic products based on the practice of the basic methodology of the invention.

L11 ANSWER 5 OF 6 USPATFULL
AN 2002:156722 USPATFULL
TI **Protein kinase** deficient, immunologically active CMVpp65 **mutants**
IN Zaia, John A., Arcadia, CA, UNITED STATES
Hawkins, Ghislaine, Glendora, CA, UNITED STATES
PI US 2002081318 A1 20020627
AI US 2001-815330 A1 20010323 (9)
PRAI US 2000-191464P 20000323 (60)
DT Utility
FS APPLICATION
LREP ROTHWELL, FIGG, ERNST & MANBECK, P.C., 555 13TH STREET, N.W., SUITE 701, EAST TOWER, WASHINGTON, DC, 20004
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 956
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to mutated CMVpp65, a viral structural protein which activates cell mediated immunity in humans infected with **CMV**. The **mutations** remove undesirable **protein kinase** activity naturally present in the protein and make it suitable for the production of both DNA and protein vaccines. Therefore, the invention provides proteins and DNAs, as well as vaccines comprising the proteins and DNAs, including cellular vaccines and vectors. Other

embodiments of the invention relate to methods of enhancing immune response and vaccinating against **CMV**, including gene therapy methods and vectors.

L11 ANSWER 6 OF 6 USPATFULL
AN 1999:18912 USPATFULL
TI Method of determining DNA sequence preference of a DNA-binding molecule
IN Edwards, Cynthia A., Menlo Park, CA, United States
Cantor, Charles R., Boston, MA, United States
Andrews, Beth M., Maynard, MA, United States
Turin, Lisa M., Redwood City, CA, United States
Fry, Kirk E., Palo Alto, CA, United States
PA Genelabs Technologies, Inc., Redwood City, CA, United States (U.S. corporation)
PI US 5869241 19990209
AI US 1995-475228 19950607 (8)
RLI Division of Ser. No. US 1993-171389, filed on 20 Dec 1993, now patented, Pat. No. US 5578444 which is a continuation-in-part of Ser. No. US 1993-123936, filed on 17 Sep 1993, now patented, Pat. No. US 5726014 which is a continuation-in-part of Ser. No. US 1992-996783, filed on 23 Dec 1992, now patented, Pat. No. US 5693463 which is a continuation-in-part of Ser. No. US 1991-723618, filed on 27 Jun 1991, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Zitomer, Stepanie W.; Assistant Examiner: Whisenant, Ethan
LREP Fabian, Gary R., Stratford, Carol A., Dehlinger, Peter J.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 72 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 9840
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention defines a DNA:protein-binding assay useful for screening libraries of synthetic or biological compounds for their ability to bind DNA test sequences. The assay is versatile in that any number of test sequences can be tested by placing the test sequence adjacent to a defined protein binding screening sequence. Binding of molecules to these test sequence changes the binding characteristics of the protein molecule to its cognate binding sequence. When such a molecule binds the test sequence the equilibrium of the DNA:protein complexes is disturbed, generating changes in the concentration of free DNA probe. Numerous exemplary target test sequences (SEQ ID NO:1 to SEQ ID NO:600) are set forth. The assay of the present invention is also useful to characterize the preferred binding sequences of any selected DNA-binding molecule.

=> d l13 ab bib

L13 ANSWER 1 OF 1 USPATFULL
AB This invention relates to mutated CMVpp65, a viral structural protein which activates cell mediated immunity in humans infected with **CMV**. The **mutations** remove undesirable **protein kinase** activity naturally present in the protein and make it suitable for the production of both DNA and protein vaccines. Therefore, the invention provides proteins and DNAs, as well as vaccines comprising the proteins and DNAs, including cellular vaccines and vectors. Other embodiments of the invention relate to methods of enhancing immune response and vaccinating against **CMV**, including gene therapy methods and vectors.
AN 2002:156722 USPATFULL
TI **Protein kinase** deficient, immunologically active CMVpp65 **mutants**

IN Zaia, John A., Arcadia, CA, UNITED STATES
Hawkins, Ghislaine, Glendora, CA, UNITED STATES
PI US 2002081318 A1 20020627
AI US 2001-815330 A1 20010323 (9)
PRAI US 2000-191464P 20000323 (60)
DT Utility
FS APPLICATION
LREP ROTHWELL, FIGG, ERNST & MANBECK, P.C., 555 13TH STREET, N.W., SUITE 701, EAST TOWER, WASHINGTON, DC, 20004
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 956
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l15 1-25 ab bib

L15 ANSWER 1 OF 25 MEDLINE
AB The major target of human **cytomegalovirus** (**CMV**)-specific cytotoxic T lymphocytes (**CTL**) is the tegument protein CMVpp65. However, this protein has protein kinase (PK) activity, and the unknown effects on cell replication of an exogenous PK in healthy cells could limit the use of CMVpp65 as a vaccine, especially in children. In this report we show that a point **mutation** converting lysine to asparagine at the invariant lysine (K436), an essential site for phosphotransfer, abolishes the threonine kinase activity. The **mutant** CMVpp65 maintains its immunologic target characteristics, including antibody and **CTL** reactivity. This kinase-deficient CMVpp65 is a candidate for evaluation in future **CMV** vaccine development.
AN 2001214709 MEDLINE
DN 21108956 PubMed ID: 11166885
TI Site-directed **mutation** in a conserved kinase domain of human **cytomegalovirus-pp65** with preservation of cytotoxic T lymphocyte targeting.
AU Yao Z Q; Gallez-Hawkins G; Lomeli N A; Li X; Molinder K M; Diamond D J; Zaia J A
CS Department of Virology, Beckman Research Institute of the City of Hope, 1500 East Duarte Road, Duarte, CA 91010, USA.
SO VACCINE, (2001 Feb 8) 19 (13-14) 1628-35.
Journal code: 8406899. ISSN: 0264-410X.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200104
ED Entered STN: 20010425
Last Updated on STN: 20010425
Entered Medline: 20010419

L15 ANSWER 2 OF 25 MEDLINE
AB The cytotoxic T-lymphocyte (**CTL**) response against the murine **cytomegalovirus** (MCMV) immediate-early gene 1 (IE1) 89-kDa phosphoprotein pp89 plays a major role in protecting BALB/c mice against the lethal effects of the viral infection. **CTL** populations specific to MCMV early-phase and structural antigens are also generated during infection, but the identities of these antigens and their relative contributions to overall immunity against MCMV are not known. We previously demonstrated that DNA vaccination with a pp89-expressing plasmid effectively generated a **CTL** response and conferred protection against infection (J. C. Gonzalez Armas, C. S. Morello, L. D. Cranmer, and D. H. Spector, J. Virol. 70:7921-7928, 1996). In this report, we have sought (i) to identify other viral antigens that contribute to

immunity against MCMV and (ii) to determine whether the protective response is haplotype specific. DNA immunization was used to test the protective efficacies of plasmids encoding MCMV homologs of human **cytomegalovirus** (HCMV) tegument (M32, M48, M56, M82, M83, M69, and M99), capsid (M85 and M86), and nonstructural antigens (IE1-pp89 and M84). BALB/c (H-2(d)) and C3H/HeN (H-2(k)) mice were immunized by intradermal injection of either single plasmids or cocktails of up to four expression plasmids and then challenged with sublethal doses of virulent MCMV administered intraperitoneally. In this way, we identified a new viral gene product, M84, that conferred protection against viral replication in the spleens of BALB/c mice. M84 is expressed early in the infection and encodes a nonstructural protein that shares significant amino acid homology with the HCMV UL83-**pp65** tegument protein, a major target of protective CTLs in humans. Specificity of the immune response to the M84 protein was confirmed by showing that immunization with pp89 DNA, but not M84 DNA, protected mice against subsequent infection with an MCMV deletion **mutant** lacking the M84 gene. The other MCMV genes tested did not generate a protective response even when mice were immunized with vaccinia viruses expressing the viral proteins. However, the M84 plasmid was protective when injected in combination with nonprotective plasmids, and coimmunization of BALB/c mice with pp89 and M84 provided a synergistic level of protection in the spleen. Viral titers in the salivary glands were also reduced, but not to the same extent as observed in the spleen, and the decrease was seen only when the BALB/c mice were immunized with pp89 plus M84 or with pp89 alone. The experiments with the C3H/HeN mice showed that the immunity conferred by DNA vaccination was haplotype dependent. In this strain of mice, only pp89 elicited a protective response as measured by a reduction in spleen titer. These results suggest that DNA immunization with the appropriate combination of **CMV** genes may provide a strategy for improving vaccine efficacy.

AN 2000193809 MEDLINE
DN 20193809 PubMed ID: 10729145
TI Suppression of murine **cytomegalovirus** (MCMV) replication with a DNA vaccine encoding MCMV M84 (a homolog of human **cytomegalovirus pp65**).
AU Morello C S; Cranmer L D; Spector D H
CS Department of Pathology, University of California, San Diego, La Jolla, California 92093-0366, USA.
NC AI20954 (NIAID)
GM07198 (NIGMS)
SO JOURNAL OF VIROLOGY, (2000 Apr) 74 (8) 3696-708.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200004
ED Entered STN: 20000505
Last Updated on STN: 20000505
Entered Medline: 20000426

L15 ANSWER 3 OF 25 MEDLINE
AB The Ag specificity of the **CTL** response against **CMV** is directed almost entirely to a single **CMV** tegument protein, the phosphoprotein **pp65**. We report the identification of three peptides derived from the protein **pp65** that displayed a high or intermediate binding to HLA-A*0201 molecules, which were also able to induce an in vitro **CTL** response in peripheral blood lymphocytes from **CMV** seropositive individuals. The peptide-specific CTLs generated were capable of recognizing the naturally processed **pp65** either presented by **CMV**-infected cells or by cells infected with an adenovirus construct expressing **pp65** in an HLA-A*0201-restricted manner. Thus, we were able to demonstrate responses

to subdominant **CTL** epitopes in **CMV-pp65** that were not detected in polyclonal cultures obtained by conventional stimulations. We also found that the amino acid sequences of the three peptides identified as HLA-A*0201-restricted **CTL** epitopes were conserved among different wild-type strains of **CMV** obtained from renal transplant patients, an AIDS patient, and a congenitally infected infant, as well as three laboratory strains of the virus (AD169, Towne and Davis). These observations suggest that these **pp65 CTL** peptide epitopes could potentially be used as synthetic peptide vaccines or for other therapeutic strategies aimed at HLA-A*0201-positive individuals, who represent approximately 40% of the European Caucasoid population. However, strain variation must be taken in consideration when the search for **CTL** epitopes is extended to other HLA class I alleles, because these **mutations** may span potential **CTL** epitopes for other HLA molecules, as it is described in this study.

AN 2000021849 MEDLINE
DN 20021849 PubMed ID: 10553078
TI Identification of three HLA-A*0201-restricted cytotoxic T cell epitopes in the **cytomegalovirus** protein **pp65** that are conserved between eight strains of the virus.
AU Solache A; Morgan C L; Dodi A I; Morte C; Scott I; Baboonian C; Zal B; Goldman J; Grundy J E; Madrigal J A
CS Anthony Nolan Research Institute, The Royal Free and University College Medical School, London, United Kingdom.
SO JOURNAL OF IMMUNOLOGY, (1999 Nov 15) 163 (10) 5512-8.
Journal code: 2985117R. ISSN: 0022-1767.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199912
ED Entered STN: 20000113
Last Updated on STN: 20000113
Entered Medline: 19991202

L15 ANSWER 4 OF 25 MEDLINE
AB Cytotoxic T lymphocytes (**CTL**) appear to play an important role in the control of human **cytomegalovirus** (HCMV) in the normal virus carrier: previous studies have identified peripheral blood CD8+ **CTL** specific for the HCMV major immediate-early gene product (IE1) and more recently, by bulk culture and cloning techniques, have identified **CTL** specific for a structural gene product, the lower matrix protein **pp65**. In order to determine the relative contributions of **CTL** which recognize the HCMV proteins IE1, **pp65**, and glycoprotein B (gB) to the total HCMV-specific **CTL** response, we have used a limiting-dilution analysis system to quantify HCMV-specific **CTL** precursors with different specificities, allowing the antigenic specificity of multiple short-term **CTL** clones to be assessed, in a group of six healthy seropositive donors. All donors showed high frequencies of HCMV-specific major histocompatibility complex-restricted **CTL** precursors. There was a very high frequency of **CTL** specific for **pp65** (lower matrix protein); IE1-specific **CTL** were also detectable at lower frequencies in three of five donors, while **CTL** directed to gB were undetectable. A **pp65** gene deletion **mutant** of HCMV was then used to estimate the contribution of **pp65**-specific **CTL** to the total HCMV-specific **CTL** response; this showed that between 70 and 90% of all **CTL** recognizing HCMV-infected cells were **pp65** specific. Analysis of the peptide specificity of **pp65**-specific **CTL** showed that some donors have a highly focused response recognizing a single peptide; the T-cell receptor Vbeta gene usage in these two donors was shown to be remarkably restricted, with over half of the responding CD8+ T cells utilizing a single Vbeta gene rearrangement. Other subjects recognized multiple **pp65** peptides:

nine new **pp65** **CTL** peptide epitopes were defined, and for five of these the HLA-presenting allele has been identified. All four of the HLA A2 donors tested in this study recognized the same peptide. This apparent domination of the **CTL** response to HCMV during persistent infection by a single structural protein, irrespective of major histocompatibility complex haplotype, is not clearly described for other persistent virus infections, and the mechanism requires further investigation.

AN 97048035 MEDLINE
DN 97048035 PubMed ID: 8892876
TI The human cytotoxic T-lymphocyte (**CTL**) response to **cytomegalovirus** is dominated by structural protein **pp65**: frequency, specificity, and T-cell receptor usage of **pp65** -specific **CTL**.
AU Wills M R; Carmichael A J; Mynard K; Jin X; Weekes M P; Plachter B; Sissons J G
CS Department of Medicine, University of Cambridge Clinical School, United Kingdom.. mrw1004@mole.bio.cam.ac.uk
SO JOURNAL OF VIROLOGY, (1996 Nov) 70 (11) 7569-79.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199612
ED Entered STN: 19970128
Last Updated on STN: 19970128
Entered Medline: 19961230

L15 ANSWER 5 OF 25 MEDLINE
AB The characterization of the epitopes recognized by **CTL** provides insights into the nature of protective immune responses and facilitates the development of methods to enhance immunity to human pathogens. However, no easily applicable approach for **CTL** epitope identification has been developed. We present a rapid and efficient method for locating **CTL** epitopes within a protein. The gene encoding the protein of interest is inserted into an inducible prokaryotic expression vector. Random peptides are then generated by alkali digestion of intact or lysed Escherichia coli expressing the protein and assayed for the presence of the epitope by coating target cells for a standard **CTL** targeting assay. A large panel of clones containing serial 3'-deletions of the gene is then generated by exonuclease III digestion, and the expressed truncated proteins are similarly analyzed for the presence of the antigenic peptide. The epitope is located by determining the deletion points of clones expressing sequential truncations and differing in Ag expression. This technique was used to identify the H-2Ld-restricted nonamer in E. coli beta-galactosidase, with residues 876-884 representing the naturally processed epitope. To test the applicability of this method to other proteins, two genes from human **CMV**, an often fatal pathogen in immunocompromised individuals, were screened for HLA class I-restricted epitopes. An HLA-B18-restricted epitope from the **CMV** major immediate-early protein was found to lie between residues 378 and 389, and an HLA-B35-restricted epitope from the **CMV** **pp65** matrix protein was characterized as residues 123 to 131. The results demonstrate that this technique can be used to rapidly identify **CTL** epitopes within a chosen protein and should be useful for assaying viral isolates or neoplasms for loss of epitopes after **mutation** and selection by host immune responses.

AN 94014340 MEDLINE
DN 94014340 PubMed ID: 7691936
TI Alkali hydrolysis of recombinant proteins allows for the rapid identification of class I MHC-restricted **CTL** epitopes.
AU Gavin M A; Gilbert M J; Riddell S R; Greenberg P D; Bevan M J
CS Department of Immunology, Fred Hutchinson Cancer Research Center, Seattle,

WA 98104.
NC AI-19335 (NIAID)
CA-18029 (NCI)
CA-90537 (NCI)
+
SO JOURNAL OF IMMUNOLOGY, (1993 Oct 15) 151 (8) 3971-80.
Journal code: 2985117R. ISSN: 0022-1767.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Abridged Index Medicus Journals; Priority Journals
EM 199311
ED Entered STN: 19940117
Last Updated on STN: 19960129
Entered Medline: 19931109

L15 ANSWER 6 OF 25 USPATFULL
AB The invention provides an artificial antigen presenting cell (AAPC) comprising a eukaryotic cell expressing an antigen presenting complex comprising a human leukocyte antigen (HLA) molecule of a single type, at least one exogenous accessory molecule and at least one exogenous T cell-specific epitope. Methods of use for activation of T lymphocytes are also provided.
AN 2002:242780 USPATFULL
TI Artificial antigen presenting cells and methods of use thereof
IN Sadelain, Michel, New York, NY, UNITED STATES
Latouche, Jean Baptiste, New York, NY, UNITED STATES
PI US 2002131960 A1 20020919
AI US 2001-872832 A1 20010601 (9)
PRAI US 2000-209157P 20000602 (60)
DT Utility
FS APPLICATION
LREP FROMMER LAWRENCE & HAUG, 745 FIFTH AVENUE- 10TH FL., NEW YORK, NY, 10151
CLMN Number of Claims: 66
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 1915
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 7 OF 25 USPATFULL
AB The present invention includes a basic method for discovering the function of gene and their corresponding gene products relative to a specific biological process or physiological condition. The invention provides the ability to develop therapeutic and diagnostic agents using the information obtained from the practice of the basic method. In the method, the gene product of a selected polynucleotide is delivered to a mammal to provide an immune response. The polynucleotide sequences may express, in vivo by immunization of an animal, or in bacterial system or other known system for expression of a polynucleotide sequence. The sera resulting from immunization with the gene product contains antibodies to the gene product which are used in function determinative assays to determine the function of the gene sequence gene product relative to a biological process or physiological condition, typically a disease in a human. The information derived from the function determinative assay enables the discovery of novel genes and gene products and provides the ability to design and/or manufacture of therapeutic or diagnostic products based on the practice of the basic methodology of the invention.
AN 2002:198588 USPATFULL
TI IDENTIFICATION OF GENE SEQUENCES AND GENE PRODUCTS AND THEIR SPECIFIC FUNCTION AND RELATIONSHIP TO PATHOLOGIES IN A MAMMAL
IN JENBOUBI, MONCEF, BETHESDA, MD, UNITED STATES
PI US 2002106688 A1 20020808
AI US 1997-906487 A1 19970805 (8)

DT Utility
FS APPLICATION
LREP LYON & LYON LLP, 633 WEST FIFTH STREET, SUITE 4700, LOS ANGELES, CA, 90071
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 3380
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 8 OF 25 USPATFULL
AB Compositions and methods for administering nucleic acid compositions in vitro to cells in culture or in vivo to an organism whereby the uptake of nucleic acids is enhanced are provided. Various compositions, including those incorporating protective, interactive, non-condensing compounds, are utilized to protect and administered nucleic acid formulation, thereby prolonging the localized bioavailability of the administered nucleic acid and enhancing expression from the nucleic acid.
AN 2002:192071 USPATFULL
TI FORMULATED NUCLEIC ACID COMPOSITIONS AND METHODS OF ADMINISTERING THE SAME FOR GENE THERAPY
IN ROLLAND, ALAIN, THE WOODLAND, TX, UNITED STATES
MUMPER, RUSSELL J., THE WOODLAND, TX, UNITED STATES
PI US 2002103142 A1 20020801
AI US 1997-798974 A1 19970211 (8)
DT Utility
FS APPLICATION
LREP LYON & LYON LLP/ VALENTIS INC., 633 WEST FIFTH STREET, SUITE 4700, LOS ANGELES, CA, 90071-2066
CLMN Number of Claims: 55
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 2413
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 9 OF 25 USPATFULL
AB This invention relates to mutated CMVpp65, a viral structural protein which activates cell mediated immunity in humans infected with **CMV**. The **mutations** remove undesirable protein kinase activity naturally present in the protein and make it suitable for the production of both DNA and protein vaccines. Therefore, the invention provides proteins and DNAs, as well as vaccines comprising the proteins and DNAs, including cellular vaccines and vectors. Other embodiments of the invention relate to methods of enhancing immune response and vaccinating against **CMV**, including gene therapy methods and vectors.
AN 2002:156722 USPATFULL
TI Protein kinase deficient, immunologically active CMVpp65 **mutants**
IN Zaia, John A., Arcadia, CA, UNITED STATES
Hawkins, Ghislaine, Glendora, CA, UNITED STATES
PI US 2002081318 A1 20020627
AI US 2001-815330 A1 20010323 (9)
PRAI US 2000-191464P 20000323 (60)
DT Utility
FS APPLICATION
LREP ROTHWELL, FIGG, ERNST & MANBECK, P.C., 555 13TH STREET, N.W., SUITE 701, EAST TOWER, WASHINGTON, DC, 20004
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 956
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 10 OF 25 USPATFULL
AB The present invention relates to molecular cloning of cDNA for both A and B chains of hu p53-specific, HLA restricted mu TCR, transfer of the cDNA to hu T cells, and functional expression of the p53-specific TCR in hu CTLs. The functional expression of the mu TCR results in the recognition of endogenously processed hu p53 expressed in tumor cells. The invention thus also relates to an anti-cancer immunotherapy by the adoptive transfer of TCR gene modified autologous T cells.
AN 2002:126011 USPATFULL
TI P53-specific T cell receptor for adoptive immunotherapy
IN Ellenhorn, Joshua D. I., North Hollywood, CA, UNITED STATES
Diamond, Don J., Glendora, CA, UNITED STATES
PA City of Hope, Duarte, CA, UNITED STATES (U.S. corporation)
PI US 2002064521 A1 20020530
AI US 2001-789697 A1 20010222 (9)
PRAI US 2000-183752P 20000222 (60)
DT Utility
FS APPLICATION
LREP ROTHWELL, FIGG, ERNST & MANBECK, P.C., 555 13TH STREET, N.W., SUITE 701, EAST TOWER, WASHINGTON, DC, 20004
CLMN Number of Claims: 32
ECL Exemplary Claim: 1
DRWN 9 Drawing Page(s)
LN.CNT 1559
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 11 OF 25 USPATFULL
AB The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode these compounds, and immune effector cells raised in response to presentation of these epitopes. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compositions of the invention.
AN 2002:112306 USPATFULL
TI Therapeutic anti-**cytomegalovirus** compounds
IN Nicolette, Charles A., Framingham, MA, UNITED STATES
PI US 2002058038 A1 20020516
AI US 2001-812079 A1 20010319 (9)
PRAI US 2000-191050P 20000321 (60)
US 2000-254989P 20001212 (60)
DT Utility
FS APPLICATION
LREP Antoinette F. Konski, McCutchen Doyle, Brown & Enersen, L.L.P., Suite 1800, 3 Embarcadero Center, San Francisco, CA, 94111
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 2364
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 12 OF 25 USPATFULL
AB Attenuated recombinant viruses containing DNA encoding an HCMV antigen, as well as methods and compositions employing the viruses, expression products therefrom, and antibodies generated from the viruses or expression products, are disclosed and claimed. The recombinant viruses can be NYVAC or ALVAC recombinant viruses. The recombinant viruses and gene products therefrom and antibodies generated by the viruses and gene products have several preventive, therapeutic and diagnostic uses. The DNA of the recombinant viruses can be used as probes or for generating PCR primers.
AN 2001:121073 USPATFULL
TI Recombinant poxvirus--**cytomegalovirus** compositions and uses
IN Paoletti, Enzo, Delmar, NY, United States
Pincus, Steven E., East Greenbush, NY, United States

Cox, William I., Troy, NY, United States
Kauffman, Elizabeth K., Averill Park, NY, United States
PA Virogenetics Corporation, Troy, NY, United States (U.S. corporation)
PI US 6267965 B1 20010731
AI US 1998-85273 19980526 (9)
RLI Continuation of Ser. No. US 1995-471014, filed on 6 Jun 1995, now abandoned Continuation-in-part of Ser. No. US 1993-105483, filed on 12 Aug 1993, now patented, Pat. No. US 5494807 Continuation of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned Continuation-in-part of Ser. No. US 1991-713967, filed on 11 Jun 1991, now abandoned Continuation-in-part of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US 713967 And Ser. No. US 1993-36217, filed on 24 Mar 1993 Continuation of Ser. No. US 666056 And Ser. No. US 85273 Continuation-in-part of Ser. No. US 1993-124668, filed on 21 Sep 1993, now patented, Pat. No. US 5482713 Division of Ser. No. US 1990-502834, filed on 4 Apr 1990, now patented, Pat. No. US 5338683 Continuation-in-part of Ser. No. US 1989-394488, filed on 16 Aug 1989, now abandoned Continuation-in-part of Ser. No. US 1989-339004, filed on 17 Apr 1989, now abandoned Continuation-in-part of Ser. No. US 1987-90209, filed on 27 Aug 1987, now abandoned Division of Ser. No. US 1984-622135, filed on 19 Jun 1984, now patented, Pat. No. US 4722848 Continuation-in-part of Ser. No. US 1982-446824, filed on 8 Dec 1982, now patented, Pat. No. US 4603112 Continuation-in-part of Ser. No. US 1981-334456, filed on 24 Dec 1981, now patented, Pat. No. US 4769330
DT Utility
FS GRANTED
EXNAM Primary Examiner: Salimi, Ali
LREP McDonnell Boehnen Hulbert & Berghoff
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN 61 Drawing Figure(s); 82 Drawing Page(s)
LN.CNT 5386
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 13 OF 25 USPATFULL
AB Attenuated recombinant viruses containing DNA coding for a cytokine and/or a tumor associated antigen, as well as methods and compositions employing the viruses, are disclosed and claimed. The recombinant viruses can be NYVAC or ALVAC recombinant viruses. The DNA can code for at least on of: human tumor necrosis factor; nuclear phosphoprotein p53, wildtype or **mutant**; human melanoma-associated antigen; IL-2; IFN.gamma.; IL-4; GNCSF; IL-12; B7; erb-B-2 and carcinoembryonic antigen. The recombinant viruses and gene products therefrom are useful for cancer therapy.
AN 2001:116795 USPATFULL
TI Pox virus containing DNA encoding a cytokine and/or a tumor associated antigen
IN Paoletti, Enzo, Delmar, NY, United States
Tartaglia, James, Schenectady, NY, United States
Cox, William I., Troy, NY, United States
PA Virogenetics Corporation, Swiftwater, PA, United States (U.S. corporation)
PI US 6265189 B1 20010724
AI US 1995-460736 19950602 (8)
RLI Division of Ser. No. US 1994-184009, filed on 19 Jan 1994, now patented, Pat. No. US 5833975 Continuation-in-part of Ser. No. US 1993-7115, filed on 21 Jan 1993, now abandoned Continuation-in-part of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned Continuation-in-part of Ser. No. US 1991-713967, filed on 11 Jun 1991, now abandoned Continuation-in-part of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US 7115 Continuation-in-part of Ser. No. US 1991-805567, filed on 16 Dec 1991, now patented, Pat. No. US 5378457 Continuation-in-part of Ser. No. US 1991-638080, filed on 7 Jan 1991, now abandoned , said Ser. No. US 7115 Continuation-in-part of Ser. No.

US 1992-847977, filed on 3 Mar 1992, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Crouch, Deborah
LREP McDonnell Boehnen Hulbert & Berghoff, Greenfield, Michael S.
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 46 Drawing Figure(s); 33 Drawing Page(s)
LN.CNT 6855
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 14 OF 25 USPATFULL
AB T cells having a desired antigen specificity are stimulated by (a) introducing immortalizing genes into antigen-presenting cells in a manner permitting regulation of the expression and/or function of at least one of these genes to achieve conditionally immortalized antigen-presenting cells; (b) introducing a gene encoding the desired antigen into the immortalized cells in a manner permitting the antigen to be expressed after the expression and/or abolishment of the function of at least one of the immortalizing genes stops; (c) expanding the immortalized antigen-presenting cells by expression and/or functional activation of the immortalizing genes; (d) completing the proliferation of the immortalized antigen-presenting cells by stopping the expression and/or abolishing the function of at least one of the controllable immortalizing genes; (e) continuing the expression of the antigen; (f) adding leucocytic cells including T cells and cultivating the cell mixture to stimulate the T cells directed against the desired antigen; and (g) optionally purifying and isolating the stimulated T cells.
AN 2001:29358 USPATFULL
TI Method for the stimulation of T cells having a desired antigen specificity
IN Staege, Martin, Munich, Germany, Federal Republic of
Kempkes, Bettina, Munich, Germany, Federal Republic of
Bornkamm, Georg W., Munich, Germany, Federal Republic of
Hammerschmidt, Wolfgang, Munich, Germany, Federal Republic of
Zimber-Strobl, Ursula, Germering, Germany, Federal Republic of
Polack, Axel, Munich, Germany, Federal Republic of
PA GSF-Forschungszentrum fur Umwelt und Gesundheit GmbH, Neuherberg, Germany, Federal Republic of (non-U.S. corporation)
PI US 6194205 B1 20010227
AI US 1998-152653 19980914 (9)
PRAI DE 1997-19740571 19970915
DT Utility
FS Granted
EXNAM Primary Examiner: Guzo, David; Assistant Examiner: Leffers, Jr., Gerald G.
LREP Townsend and Townsend and Crew LLP
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1044
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 15 OF 25 USPATFULL
AB Disclosed and claimed are compositions and methods for therapy and/or prevention of restenosis and/or atherosclerosis. The compositions can include an agent for decreasing viral load of **cytomegalovirus**, such as an immunological composition or vaccine against **cytomegalovirus** (**CMV**) containing at least one epitope of interest of **CMV** and/or an expression system which expresses at least one epitope of interest of **CMV**. Such compositions can include at least one epitope of p53. Alternatively, the compositions can include at least one epitope of p53 and/or an expression system which expresses the epitope. The methods can include administering the

compositions to a patient in need of such therapy and/or prevention. Additionally, compositions and methods for diagnosing atherosclerosis and/or restenosis, or susceptibility thereto, including screening a sample from a patient for antibodies to **CMV** and/or **CMV** proteins and/or screening a sample from a patient for specific viral proteins that predict whether the virus has been reactivated and/or antibodies thereto and/or detecting whether **CMV** nucleic acid, e.g., mRNA is present in peripheral blood monocytes (PBMCs) and/or detecting a cellular-mediated immune response to **CMV** peptides or proteins is present and/or HLA phenotyping and/or HLA genotyping. Embodiements can include a skin test.

AN 2001:18000 USPATFULL
TI Restenosis/atherosclerosis diagnosis, prophylaxis and therapy
IN Epstein, Stephen E., Rockville, MD, United States
Finkel, Toren, Bethesda, MD, United States
Speir, Edith, Annandale, VA, United States
Zhou, Yi Fu, Bethesda, MD, United States
Zhu, Jianhui, Bethesda, MD, United States
Erdile, Lorne, Loudonville, NY, United States
Pincus, Steven, East Greenbush, NY, United States
PA Pasteur Merieux Serums et Vaccins, Lyons, France (non-U.S. corporation)
The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)
PI US 6183752 B1 20010206
AI US 1997-796101 19970205 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Mosher, Mary E.
LREP Frommer Lawrence & Haug LLP, Frommer, William S., Kowalski, Thomas J.
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 115 Drawing Figure(s); 102 Drawing Page(s)
LN.CNT 5767
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 16 OF 25 USPATFULL
AB A DNA probe has been isolated which is capable of hybridizing to an oligonucleotide sequence coding for a polypeptide from a major 64 Kilodalton protein of human **cytomegalovirus** (HCMVgp64). The probe has a sequence of at least seventeen (17) to as many as seven hundred twenty-one (721) nucleotides. The DNA fragments coding for the major late protein of human **cytomegalovirus** (HCMVgp64) may be hybridized to DNA fragments of HCMV DNA from an individual having human **cytomegalovirus** infection. The major late protein of human **cytomegalovirus** (HCMVgp64) also reacts with T-lymphocytes of an individual after natural infection of that individual with human **cytomegalovirus**. Thus, the HCMVgp64 protein may be used as a vaccine to prevent HCMV infection.

AN 2000:138517 USPATFULL
TI Method for detection and prevention of human **cytomegalovirus** infection
IN Pande, Hema, Arcadia, CA, United States
Riggs, Arthur D., LaVerne, CA, United States
Zaia, John A., Arcadia, CA, United States
Clark, Brian R., Redwood City, CA, United States
PA City of Hope, Duarte, CA, United States (U.S. corporation)
PI US 6133433 20001017
AI US 1995-469920 19950606 (8)
RLI Continuation-in-part of Ser. No. US 1992-978151, filed on 17 Nov 1992, now abandoned which is a continuation of Ser. No. US 1989-307526, filed on 8 Feb 1989, now abandoned which is a division of Ser. No. US 1986-885386, filed on 16 Jul 1986, now patented, Pat. No. US 5075213 And a continuation of Ser. No. US 1984-635368, filed on 27 Jul 1984, now abandoned

DT Utility
FS Granted
EXNAM Primary Examiner: Davenport, Avis M.
LREP Rothwell, Figg, Ernst & Kurz
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 10 Drawing Figure(s); 7 Drawing Page(s)
LN.CNT 1049

L15 ANSWER 17 OF 25 USPATFULL
AB Attenuated recombinant viruses containing DNA encoding an HCMV antigen, as well as methods and compositions employing the viruses, expression products therefrom, and antibodies generated from the viruses or expression products, are disclosed and claimed. The recombinant viruses can be NYVAC or ALVAC recombinant viruses. The recombinant viruses and gene products therefrom and antibodies generated by the viruses and gene products have several preventive, therapeutic and diagnostic uses. The DNA of the recombinant viruses can be used as probes or for generating PCR primers.
AN 1999:159495 USPATFULL
TI Recombinant poxvirus-**cytomegalovirus**, compositions and uses
IN Paoletti, Enzo, Delmar, NY, United States
Pincus, Steven E., East Greenbush, NY, United States
Cox, William I., Sand Lake, NY, United States
Kauffman, Elizabeth B., Averill Park, NY, United States
PA Connaught Laboratories, Swiftwater, PA, United States (U.S. corporation)
PI US 5997878 19991207
AI US 1996-658665 19960605 (8)
RLI Continuation-in-part of Ser. No. US 1995-471014, filed on 6 Jun 1995, now abandoned which is a continuation-in-part of Ser. No. US 1993-105483, filed on 13 Aug 1993, now patented, Pat. No. US 5494807 which is a continuation of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-713967, filed on 11 Jun 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US 658665 which is a continuation-in-part of Ser. No. US 1993-124668, filed on 21 Sep 1993, now patented, Pat. No. US 5482713 which is a division of Ser. No. US 1990-502834, filed on 4 Apr 1990, now patented, Pat. No. US 5338683 which is a continuation-in-part of Ser. No. US 1989-394488, filed on 16 Aug 1989, now abandoned which is a continuation-in-part of Ser. No. US 1989-339004, filed on 17 Apr 1989, now abandoned And Ser. No. US 1987-90209, filed on 27 Aug 1987, now abandoned which is a division of Ser. No. US 1984-622135, filed on 19 Jun 1984, now patented, Pat. No. US 4722848 which is a continuation-in-part of Ser. No. US 1982-446824, filed on 8 Dec 1982, now patented, Pat. No. US 4603112 which is a continuation-in-part of Ser. No. US 1987-334456, filed on 24 Dec 1987, now patented, Pat. No. US 4769330
DT Utility
FS Granted
EXNAM Primary Examiner: Mosher, Mary E.; Assistant Examiner: Salimi, Ali R.
LREP McDonnell, Boehnen, Hulbert & Berghoff
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 99 Drawing Figure(s); 94 Drawing Page(s)
LN.CNT 9682
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 18 OF 25 USPATFULL
AB Attenuated recombinant viruses containing DNA coding for a cytokine and/or a tumor associated antigen, as well as methods and compositions employing the viruses, are disclosed and claimed. The recombinant viruses can be NYVAC or ALVAC recombinant viruses. The DNA can code for at least one of: human tumor necrosis factor; nuclear phosphoprotein

p53, wildtype or **mutant**; human melanoma-associated antigen; IL-2; IFN.gamma.; IL-4; GMCSF; IL-12; B7; erb-B-2 and carcinoembryonic antigen. The recombinant viruses and gene products therefrom are useful for cancer therapy.

AN 1999:99383 USPATFULL

TI Recombinant poxvirus compositions and methods of inducing immune responses

IN Paoletti, Enzo, Delmar, NY, United States

PA Health Research, Inc., Rensselaer, NY, United States (U.S. corporation)

PI US 5942235 19990824

AI US 1995-458356 19950602 (8)

RLI Division of Ser. No. US 1994-184009, filed on 19 Jan 1994 And a continuation-in-part of Ser. No. US 1992-918278, filed on 22 Jul 1992, now patented, Pat. No. US 5505941 And Ser. No. US 1994-306259, filed on 13 Sep 1994, now patented, Pat. No. US 5583028 which is a division of Ser. No. US 1994-228926, filed on 14 Apr 1994 which is a continuation of Ser. No. US 1992-881995, filed on 4 May 1992, now abandoned which is a division of Ser. No. US 1990-537882, filed on 14 Jun 1990, now patented, Pat. No. US 5110587 which is a continuation of Ser. No. US 1987-90209, filed on 27 Aug 1987, now abandoned which is a division of Ser. No. US 1984-622135, filed on 19 Jun 1984, now patented, Pat. No. US 4722848 which is a continuation-in-part of Ser. No. US 1992-446824, filed on 8 Dec 1992, now patented, Pat. No. US 4603112 which is a continuation-in-part of Ser. No. US 1981-334456, filed on 24 Dec 1981, now patented, Pat. No. US 4769330, issued on 6 Sep 1988 , said Ser. No. US 1992-918278, filed on 22 Jul 1992 which is a continuation of Ser. No. US 1990-537890, filed on 14 Jun 1990, now patented, Pat. No. US 5174993, issued on 29 Dec 1992 which is a continuation of Ser. No. US 1988-234390, filed on 23 Aug 1988, now abandoned which is a continuation-in-part of Ser. No. US 1988-186054, filed on 25 Apr 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-110335, filed on 20 Oct 1987, now abandoned which is a continuation-in-part of Ser. No. US 1987-90711, filed on 28 Aug 1987, now abandoned , said Ser. No. US 537890 which is a continuation-in-part of Ser. No. US 90209 , said Ser. No. US 918278 which is a continuation of Ser. No. US 537890 , said Ser. No. US 184009 which is a continuation-in-part of Ser. No. US 1993-7115, filed on 20 Jan 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned Ser. No. Ser. No. US 1991-805567, filed on 16 Dec 1991, now patented, Pat. No. US 5378457 And Ser. No. US 1992-847977, filed on 3 Mar 1992, now abandoned which is a division of Ser. No. US 1990-478179, filed on 14 Feb 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-320471, filed on 8 Mar 1989, now patented, Pat. No. US 5155020 , said Ser. No. US 847951 which is a continuation-in-part of Ser. No. US 1991-713967, filed on 11 Jun 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US 805567 which is a continuation-in-part of Ser. No. US 1991-638080, filed on 7 Jan 1991, now abandoned

DT Utility

FS Granted

EXNAM Primary Examiner: Crouch, Deborah

LREP Frommer Lawrence & Haug LLP, Frommer, William S., Kowalski, Thomas J.

CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN 46 Drawing Figure(s); 33 Drawing Page(s)

LN.CNT 9308

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 19 OF 25 USPATFULL

AB Infection of human fibroblast cells with human **cytomegalovirus** (HCMV) causes down-regulation of cell surface expression of MHC class I. A recombinant **mutant** HCMV which fails to down-regulate class I heavy chain expression is described. A method of controlling

down-regulation of MHC class I expression in a **cytomegalovirus** infected cell, a pharmaceutical composition, a vaccine composition,

a method of preventing or reducing susceptibility to acute **cytomegalovirus** in an individual, and a virus based gene therapy vector are also described.

AN 1999:63253 USPATFULL
TI Cells transformed or transfected with HCMV US2 gene
IN Jones, Thomas R., New City, NY, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
PI US 5908780 19990601
AI US 1998-39802 19980316 (9)
RLI Division of Ser. No. US 1995-509214, filed on 31 Jul 1995, now patented, Pat. No. US 5843458 which is a continuation-in-part of Ser. No. US 1994-282696, filed on 29 Jul 1994, now patented, Pat. No. US 5846806
DT Utility
FS Granted
EXNAM Primary Examiner: McKelvey, Terry
LREP Barnhard, Elizabeth M.
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN 55 Drawing Figure(s); 24 Drawing Page(s)
LN.CNT 1321
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 20 OF 25 USPATFULL
AB Infection of human fibroblast cells with human **cytomegalovirus** (HCMV) causes down regulation of cell surface expression of MHC class I. The present invention is directed to a **mutant** with a 9-kb deletion in the S component of the HCMV genome (including open reading frames IRS1-US9 and US11) which failed to down regulate class I heavy chains. By examining the phenotypes of **mutants** with smaller deletions with this portion of the HCMV genome, a 7-kb region containing at least 9 open reading frames was shown to contain the genes required for reduction in heavy chain expression. Furthermore, it was determined that two subregions (A and B) of the 7-kb region each contained genes which were sufficient to cause heavy chain down regulation. In subregion B, the US11 gene product is involved. It encodes a endoglycosidase H-sensitive glycoprotein which is intracytoplasmic, similar to the adenovirus type 2 E3-19K glycoprotein which inhibits surface expression of class I heavy chains.
AN 1999:61121 USPATFULL
TI Cells transformed or transfected with HCMV US2-US5, US10-US11 genes
IN Jones, Thomas R., Nyack, NY, United States
Campbell, Ann E., Norfalk, VA, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
Eastern Virginia Medical School of the Medical College of Hampton Roads, Norfolk, VA, United States (U.S. corporation)
PI US 5906935 19990525
AI US 1997-946598 19971007 (8)
RLI Continuation of Ser. No. US 1995-459587, filed on 2 Jun 1995, now abandoned which is a division of Ser. No. US 1994-282696, filed on 29 Jul 1994, now patented, Pat. No. US 5846806
DT Utility
FS Granted
EXNAM Primary Examiner: McKelvey, Terry
LREP Barnhard, Elizabeth M.
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 39 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 997
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 21 OF 25 USPATFULL

AB Infection of human fibroblast cells with human **cytomegalovirus** (HCMV) causes down regulation of cell surface expression of MHC class I. The present invention is directed to a **mutant** with a 9-kb deletion in the S component of the HCMV genome (including open reading frames IRS1-US9 and US11) which failed to down regulate class I heavy chains. By examining the phenotypes of **mutants** with smaller deletions with this portion of the HCMV genome, a 7-kb region containing at least 9 open reading frames was shown to contain the genes required for reduction in heavy chain expression. Furthermore, it was determined that two subregions (A and B) of the 7-kb region each contained genes which were sufficient to cause heavy chain down regulation. In subregion B, the US11 gene product is involved. It encodes a endoglycosidase H-sensitive glycoprotein which is intracytoplasmic, similar to the adenovirus type 2 E3-19K glycoprotein which inhibits surface expression of class I heavy chains.
AN 1998:154120 USPATFULL
TI Identification of a human **cytomegalovirus** gene region involved in down-regulation of MHC class I heavy chain expression
IN Jones, Thomas R., Nyack, NY, United States
Campbell, Ann E., Norfalk, VA, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
Eastern Virginia Medical School, Norfolk, VA, United States (U.S. corporation)
PI US 5846806 19981208
AI US 1994-282696 19940729 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Fleisher, Mindy; Assistant Examiner: McKelvey, Terry A.
LREP Barnhard, Elizabeth M.
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 39 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 2173
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 22 OF 25 USPATFULL
AB Infection of human fibroblast cells with human **cytomegalovirus** (HCMV) causes down-regulation of cell surface expression of MHC class I. A recombinant **mutant** HCMV which fails to down-regulate class I heavy chain expression is described. A method of controlling down-regulation of MHC class I expression in a **cytomegalovirus** infected cell, a pharmaceutical composition, a vaccine composition, a method of preventing or reducing susceptibility to acute **cytomegalovirus** in an individual, and a virus based gene therapy vector are also described.
AN 1998:150476 USPATFULL
TI Recombinant human **cytomegalovirus** having a US2 deletion
IN Jones, Thomas R., New City, NY, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
PI US 5843458 19981201
AI US 1995-509214 19950731 (8)
RLI Continuation-in-part of Ser. No. US 1994-282696, filed on 29 Jul 1994
DT Utility
FS Granted
EXNAM Primary Examiner: McKelvey, Terry A.
LREP Barnhard, Elizabeth M.
CLMN Number of Claims: 6
ECL Exemplary Claim: 2
DRWN 55 Drawing Figure(s); 24 Drawing Page(s)
LN.CNT 1328
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 23 OF 25 USPATFULL

AB Attenuated vaccinia or canarypox recombinant viruses containing DNA coding for a cytokine and/or a tumor associated antigen, as well as methods and compositions employing the viruses, are disclosed and claimed. The recombinant viruses can be NYVAC or ALVAC recombinant viruses. The DNA can code for at least one of: human tumor necrosis factor; nuclear phosphoprotein p53, wildtype or **mutant**; human melanoma-associated antigen; IL-2; IFN.gamma.; IL-4; GMCSF; IL-12; B7; erb-B-2 and carcinoembryonic antigen. The recombinant viruses and gene products therefrom are useful for cancer therapy.

AN 1998:138427 USPATFULL

TI Canarypox virus expressing cytokine and/or tumor-associated antigen DNA sequence

IN Paoletti, Enzo, Delmar, NY, United States
Tartaglia, James, Schenectady, NY, United States
Cox, William I., Troy, NY, United States

PA Virogenetics Corporation, Troy, NY, United States (U.S. corporation)

PI US 5833975 19981110

AI US 1994-184009 19940119 (8)

RLI Continuation-in-part of Ser. No. US 1993-7115, filed on 21 Jan 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-713967, filed on 11 Jun 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US 7115 which is a continuation-in-part of Ser. No. US 1991-805567, filed on 16 Dec 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-638080, filed on 7 Jan 1991, now abandoned , said Ser. No. US 7115 which is a continuation-in-part of Ser. No. US 1992-847977, filed on 3 Mar 1992, now abandoned which is a division of Ser. No. US 1990-478179, filed on 14 Feb 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-320471, filed on 8 Mar 1989, now patented, Pat. No. US 5155020

DT Utility

FS Granted

EXNAM Primary Examiner: Crouch, Deborah

LREP Frommer Lawerence & Haug LLP, Frommer, William S., Kowalski, Thomas J.

CLMN Number of Claims: 5

ECL Exemplary Claim: 1

DRWN 46 Drawing Figure(s); 33 Drawing Page(s)

LN.CNT 8834

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 24 OF 25 USPATFULL

AB Infection of human fibroblast cells with human **cytomegalovirus** (HCMV) causes down regulation of cell surface expression of MHC class I. The present invention is directed to a **mutant** with a 9-kb deletion in the S component of the HCMV genome (including open reading frames IRS1-US9 and US11) which failed to down regulate class I heavy chains. By examining the phenotypes of **mutants** with smaller deletions with this portion of the HCMV genome, a 7-kb region containing at least 9 open reading frames was shown to contain the genes required for reduction in heavy chain expression. Furthermore, it was determined that two subregions (A and B) of the 7-kb region each contained genes which were sufficient to cause heavy chain down regulation. In subregion B, the US11 gene product is involved. It encodes a endoglycosidase H-sensitive glycoprotein which is intracytoplasmic, similar to the adenovirus type 2 E3-19K glycoprotein which inhibits surface expression of class I heavy chains.

AN 1998:54723 USPATFULL

TI Identification of a human **cytomegalovirus** gene region involved in down regulation of MHC class I heavy chain expression

IN Jones, Thomas R., Nyack, NY, United States
Campbell, Ann E., Norfalk, VA, United States

PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)

PI US 5753476 19980519

AI US 1995-458544 19950602 (8)
RLI Division of Ser. No. US 1994-282696, filed on 29 Jul 1994
DT Utility
FS Granted
EXNAM Primary Examiner: Elliott, George C.; Assistant Examiner: McKelvey, Terry A.
LREP Barnhard, Elizabeth M.
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 39 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 1002
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 25 OF 25 USPATFULL
AB Infection of human fibroblast cells with human **cytomegalovirus** (HCMV) causes down regulation of cell surface expression of MHC class I. The present invention is directed to a **mutant** with a 9-kb deletion in the S component of the HCMV genome (including open reading frames IRS1-US9 and US11) which failed to down regulate class I heavy chains. By examining the phenotypes of **mutants** with smaller deletions with this portion of the HCMV genome, a 7-kb region containing at least 9 open reading frames was shown to contain the genes required for reduction in heavy chain expression. Furthermore, it was determined that two subregions (A and B) of the 7-kb region each contained genes which were sufficient to cause heavy chain down regulation. In subregion B, the US11 gene product is involved. It encodes a endoglycosidase H-sensitive glycoprotein which is intracytoplasmic, similar to the adenovirus type 2 E3-19K glycoprotein which inhibits surface expression of class I heavy chains.
AN 1998:19444 USPATFULL
TI Recombinant human **cytomegalovirus** vaccine
IN Jones, Thomas R., Nyack, NY, United States
Campbell, Ann E., Norfalk, VA, United States
PA American Cyanamid Company, Madison, NJ, United States (U.S. corporation)
PI US 5720957 19980224
AI US 1995-459586 19950602 (8)
RLI Division of Ser. No. US 1994-282696, filed on 29 Jul 1994
DT Utility
FS Granted
EXNAM Primary Examiner: Elliott, George C.; Assistant Examiner: McKelvey, Terry A.
LREP Barnhard, Elizabeth M.
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN 39 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 1573
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l16 1-16 bib ab

L16 ANSWER 1 OF 10 MEDLINE
AN 2002289309 MEDLINE
DN 22025640 PubMed ID: 12028562
TI Kinase-deficient **CMVpp65** triggers a **CMVpp65** specific T-cell immune response in HLA-A*0201.Kb transgenic mice after DNA immunization.
CM Erratum in: Scand J Immunol 2002 Aug;56(2):217
AU Gallez-Hawkins G; Lomeli N A; L Li X; Yao Z Q; La Rosa C; Diamond D J; Zaia J A
CS Department of Virology, Beckman Research Institute of the City of Hope, Duarte, CA, USA.
NC 1PO1-CA30206 (NCI)
1R01-AI43267 (NIAID)

1R01-CA77544 (NCI)
R21-AI44313 (NIAID)
SO SCANDINAVIAN JOURNAL OF IMMUNOLOGY, (2002 Jun) 55 (6) 592-8.
Journal code: 0323767. ISSN: 0300-9475.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200207
ED Entered STN: 20020528
Last Updated on STN: 20020904
Entered Medline: 20020708
AB **CMVpp65**, a candidate component of human cytomegalovirus (CMV) vaccines, has phosphokinase (PK) activity that could affect vaccine safety. A mutated form of **CMVpp65** substituting asparagine for lysine at the adenosine triphosphate (ATP)-binding site (CMVpp65mII) is kinase-deficient. Using DNA immunizations in a transgenic human leucocyte antigen (HLA)A*0201.Kb mouse model, the mutated **CMVpp65** induced cytotoxic T lymphocytes (CTL) immunity similarly to native **CMVpp65** . Murine CTL lines generated from these immunizations killed human cells either after sensitization with **CMVpp65**-specific peptides or after infection with either CMV-Towne strain or rvac-pp65. It is proposed that CMVpp65mII be evaluated in candidate vaccines for CMV.

L16 ANSWER 2 OF 10 MEDLINE
AN 2001214709 MEDLINE
DN 21108956 PubMed ID: 11166885
TI Site-directed mutation in a conserved kinase domain of human cytomegalovirus-pp65 with preservation of cytotoxic T lymphocyte targeting.
AU Yao Z Q; Gallez-Hawkins G; Lomeli N A; Li X; Molinder K M; Diamond D J; Zaia J A
CS Department of Virology, Beckman Research Institute of the City of Hope, 1500 East Duarte Road, Duarte, CA 91010, USA.
SO VACCINE, (2001 Feb 8) 19 (13-14) 1628-35.
Journal code: 8406899. ISSN: 0264-410X.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200104
ED Entered STN: 20010425
Last Updated on STN: 20010425
Entered Medline: 20010419
AB The major target of human cytomegalovirus (CMV)-specific cytotoxic T lymphocytes (CTL) is the tegument protein **CMVpp65**. However, this protein has protein kinase (PK) activity, and the unknown effects on cell replication of an exogenous PK in healthy cells could limit the use of **CMVpp65** as a vaccine, especially in children. In this report we show that a point mutation converting lysine to asparagine at the invariant lysine (K436), an essential site for phosphotransfer, abolishes the threonine kinase activity. The mutant **CMVpp65** maintains its immunologic target characteristics, including antibody and CTL reactivity. This kinase-deficient **CMVpp65** is a candidate for evaluation in future CMV vaccine development.

L16 ANSWER 3 OF 10 MEDLINE
AN 2001180946 MEDLINE
DN 21105289 PubMed ID: 11160752
TI Infrequent occurrence of natural mutations in the pp65(495-503) epitope sequence presented by the HLA A*0201 allele among human cytomegalovirus isolates.
AU Zaia J A; Gallez-Hawkins G; Li X; Yao Z Q; Lomeli N; Molinder K; La Rosa C; Diamond D J

CS Department of Virology, Beckman Research Institute of the City of Hope, Duarte, California 91010, USA.. jzaia@coh.org
NC 1RO1-AI43267 (NIAID)
1RO1-CA77544 (NCI)
PO1-CA30206 (NCI)
SO JOURNAL OF VIROLOGY, (2001 Mar) 75 (5) 2472-4.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200103
ED Entered STN: 20010404
Last Updated on STN: 20010404
Entered Medline: 20010329
AB To determine if mutations of an immunodominant HLA-restricted cytomegalovirus (CMV) peptide sequence occur in nature, the sequence corresponding to the HLA A*0201-specific peptide **CMVpp65** (495-503) was determined in 50 human CMV isolates. Rare mutations were detected; 6 of 50 were silent mutations at the amino terminus of the peptide, while 3 of 50 were mutations of the native methionine residue to isoleucine (M499I). The observed M499I mutation in three isolates decreased cytolytic targeting.

L16 ANSWER 4 OF 10 MEDLINE
AN 2000324473 MEDLINE
DN 20324473 PubMed ID: 10868621
TI Characterization of **CMVpp65**-specific CD8+ T lymphocytes using MHC tetramers in kidney transplant patients and healthy participants.
AU Engstrand M; Tournay C; Peyrat M A; Eriksson B M; Wadstrom J; Wirgart B Z; Romagne F; Bonneville M; Totterman T H; Korsgren O
CS Division of Clinical Immunology & Transfusion Medicine, University Hospital, Uppsala, Sweden.
SO TRANSPLANTATION, (2000 Jun 15) 69 (11) 2243-50.
Journal code: 0132144. ISSN: 0041-1337.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals; AIDS
EM 200007
ED Entered STN: 20000720
Last Updated on STN: 20000720
Entered Medline: 20000713
AB BACKGROUND: Cytomegalovirus (CMV) is a ubiquitous herpesvirus that infects 50-90% of individuals in different populations. After primary infection, the virus persists latently in myeloid cells under the control of specific T-cells. Reactivation of CMV infection may cause lethal organ dysfunction and is frequently seen in immunosuppressed individuals. CD8+ cytotoxic T-cells (CTL) have a primary role in suppressing CMV reactivation, and the dominating CTL response is directed against pp65. METHODS: MHC tetramers, that is, complexes between HLA class I (or class II) molecules and antigenic peptides conjugated to fluorochromes allow the direct visualization of antigen-specific receptor-carrying T-cells using flow cytometry. We constructed a novel MHC tetramer for identification of **CMVpp65**-specific CD8+ T-cells using HLA-A2 molecules folded with the immunodominant NLVPMVATV peptide. RESULTS: The A2/pp65 tetramer specifically stained CMV-directed T-cell lines, and sorted cells showed CMV-specific cytotoxicity. High proportions (0.1-9%) of the CD8+ T-cells were A2/pp65 tetramer+ in healthy HLA-A2+ CMV carriers and in immunosuppressed kidney transplant patients with latent infection. Patients with reactivated CMV infection exhibited up to 15% A2/pp65 tetramer+ cells, which seemed to correlate with CMV load over time. A2/pp65 tetramer+ cells expressed T-cell activation markers. CONCLUSIONS: The construction of a novel A2/pp65 MHC tetramer enabled the design of a

rapid and precise flow cytometric method allowing quantitative and qualitative analysis of CMV-specific T-cells. The number of A2/pp65 tetramer binding CTLs in blood may prove to be clinically relevant in assessing the immune response to CMV.

L16 ANSWER 5 OF 10 MEDLINE
AN 97317525 MEDLINE
DN 97317525 PubMed ID: 9190308
TI [The significance of risk-adapted antiviral prophylaxis and modern virus diagnosis for organ survival after kidney transplantation]. Bedeutung risikoadaptierter antiviraler Prophylaxe und moderner Virusdiagnostik fur das Organuberleben nach Nierentransplantation.
CM Comment in: Dtsch Med Wochenschr. 1997 Oct 24;122(43):1334
AU Fricke L; Steinhoff J; Hartwig-Weber I; Bein G
CS Klinik fur Innere Medizin I, Medizinischen Universitat zu Lubeck.
SO DEUTSCHE MEDIZINISCHE WOCHENSCHRIFT, (1997 May 2) 122 (18) 565-71. Journal code: 0006723. ISSN: 0012-0472.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA German
FS Priority Journals
EM 199706
ED Entered STN: 19970630
Last Updated on STN: 19990129
Entered Medline: 19970616
AB BASIC PROBLEM AND OBJECTIVE: Viral, especially cytomegalovirus (CMV), infections are after rejection reaction the most serious problem following organ transplantation. The risk of disease correlates with the CMV donor/recipient constellation and the degree of immunosuppression. The importance of antiviral prophylaxis remains unresolved. Whether drug prophylaxis adapted to the individual risk is of clinical value was investigated in a prospective study. PATIENTS AND METHODS: A risk-adapted stepwise antiviral prophylactic regimen was given to 62 patients with renal transplants. All patients at risk of CMV infection were given acyclovir, 200 mg four times daily for 3 months. Patients with rejection reaction for which they were receiving i.v. immunosuppressive treatment additionally received CMV hyperimmunoglobulin (2 ml/kg body weight on days 1 and 14). High-risk patients (donor CMV positive and recipient CMV negative) were given as basic prophylaxis CMV hyperimmunoglobulin i.v. on days 1 and 14 after transplantation, and additionally i.v. ganciclovir during any rejection treatment. The results were compared with those of a retrospectively selected patient cohort (n = 52) who had received only acyclovir as basic prophylaxis. The diagnosis of CMV infection was made by demonstrating **CMVpp65** antigen in blood. In the prospectively studied patients measurement of beta 2 microglobulin concentration was used to determine viruria in 24-hour urine. RESULTS: Among the high-risk group (donor CMV positive/recipient CMV negative) the additional prophylactic regimen significantly reduced the proportion of CMV-associated cases of rejection (14% compared with 42%, $P < 0.05$) in the basic prophylaxis only group. Similar results were obtained for CMV-caused transplant loss within the first 3 years (19% vs 50%, $P < 0.05$). The additional prophylaxis had no influence on the incidence of CMV infection. In case of active infection an isolated rise of beta 2-microglobulin in urine occurred in active infection at a mean of 6 days before **CMVpp65** antigenaemia (sensitivity of 89%). CONCLUSIONS: These results indicate that risk-adapted antiviral prophylaxis can decisively influence the long-term prognosis for a renal transplant, but not the incidence of CMV infection. The early and reliable diagnosis of active CMV infection is made possible by the combined use of beta 2-microglobulinuria and pp65 antigenaemia.

L16 ANSWER 6 OF 10 USPATFULL
AN 2002:265870 USPATFULL
TI Methods of detecting specific cell lysis

IN Nixon, Douglas, San Francisco, CA, UNITED STATES
McDermott, Adrian B., North Yorkshire, UNITED KINGDOM
Furlan, Scott, San Francisco, CA, UNITED STATES
Bigos, Martin, San Francisco, CA, UNITED STATES
Sheehy, Megan, Syracuse, NY, UNITED STATES
Klenerman, Paul, Oxford, UNITED KINGDOM
PI US 2002146746 A1 20021010
AI US 2001-954392 A1 20010912 (9)
PRAI US 2001-282258P 20010405 (60)
DT Utility
FS APPLICATION
LREP Paula A. Borden, BOZICEVIC, FIELD & FRANCIS LLP, Suite 200, 200 Middlefield Road, Menlo Park, CA, 94025
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 11 Drawing Page(s)
LN.CNT 1862
AB The present invention provides methods of detecting specific lysis of a cell by a lytic agent. The methods generally involve contacting a labeled target cell with a lytic agent; and detecting fluorescence in the target cell. The target cells are labeled with two fluorescent labels: a first fluorescent label that labels the plasma membrane; and a second fluorescent label that labels the cytosol. Release of the cytosolic label from the target cell indicates that the target cell has been lysed. The invention further provides methods of detecting the presence in a sample of a cell that specifically lyses a target cell. The invention further provides methods of detecting the presence in a sample of an antibody that specifically lyses a target cell. The methods are useful in a variety of applications.

L16 ANSWER 7 OF 10 USPATFULL
AN 2002:156722 USPATFULL
TI Protein kinase deficient, immunologically active **CMVpp65** mutants
IN Zaia, John A., Arcadia, CA, UNITED STATES
Hawkins, Ghislaine, Glendora, CA, UNITED STATES
PI US 2002081318 A1 20020627
AI US 2001-815330 A1 20010323 (9)
PRAI US 2000-191464P 20000323 (60)
DT Utility
FS APPLICATION
LREP ROTHWELL, FIGG, ERNST & MANBECK, P.C., 555 13TH STREET, N.W., SUITE 701, EAST TOWER, WASHINGTON, DC, 20004
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 956
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to mutated **CMVpp65**, a viral structural protein which activates cell mediated immunity in humans infected with CMV. The mutations remove undesirable protein kinase activity naturally present in the protein and make it suitable for the production of both DNA and protein vaccines. Therefore, the invention provides proteins and DNAs, as well as vaccines comprising the proteins and DNAs, including cellular vaccines and vectors. Other embodiments of the invention relate to methods of enhancing immune response and vaccinating against CMV, including gene therapy methods and vectors.

L16 ANSWER 8 OF 10 USPATFULL
AN 2001:121073 USPATFULL
TI Recombinant poxvirus--cytomegalovirus compositions and uses
IN Paoletti, Enzo, Delmar, NY, United States
Pincus, Steven E., East Greenbush, NY, United States
Cox, William I., Troy, NY, United States

Kauffman, Elizabeth K., Averill Park, NY, United States
PA Virogenetics Corporation, Troy, NY, United States (U.S. corporation)
PI US 6267965 B1 20010731
AI US 1998-85273 19980526 (9)
RLI Continuation of Ser. No. US 1995-471014, filed on 6 Jun 1995, now abandoned Continuation-in-part of Ser. No. US 1993-105483, filed on 12 Aug 1993, now patented, Pat. No. US 5494807 Continuation of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned Continuation-in-part of Ser. No. US 1991-713967, filed on 11 Jun 1991, now abandoned Continuation-in-part of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US 713967 And Ser. No. US 1993-36217, filed on 24 Mar 1993 Continuation of Ser. No. US 666056 And Ser. No. US 85273 Continuation-in-part of Ser. No. US 1993-124668, filed on 21 Sep 1993, now patented, Pat. No. US 5482713 Division of Ser. No. US 1990-502834, filed on 4 Apr 1990, now patented, Pat. No. US 5338683 Continuation-in-part of Ser. No. US 1989-394488, filed on 16 Aug 1989, now abandoned Continuation-in-part of Ser. No. US 1989-339004, filed on 17 Apr 1989, now abandoned Continuation-in-part of Ser. No. US 1987-90209, filed on 27 Aug 1987, now abandoned Division of Ser. No. US 1984-622135, filed on 19 Jun 1984, now patented, Pat. No. US 4722848 Continuation-in-part of Ser. No. US 1982-446824, filed on 8 Dec 1982, now patented, Pat. No. US 4603112 Continuation-in-part of Ser. No. US 1981-334456, filed on 24 Dec 1981, now patented, Pat. No. US 4769330
DT Utility
FS GRANTED
EXNAM Primary Examiner: Salimi, Ali
LREP McDonnell Boehnen Hulbert & Berghoff
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN 61 Drawing Figure(s); 82 Drawing Page(s)
LN.CNT 5386
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Attenuated recombinant viruses containing DNA encoding an HCMV antigen, as well as methods and compositions employing the viruses, expression products therefrom, and antibodies generated from the viruses or expression products, are disclosed and claimed. The recombinant viruses can be NYVAC or ALVAC recombinant viruses. The recombinant viruses and gene products therefrom and antibodies generated by the viruses and gene products have several preventive, therapeutic and diagnostic uses. The DNA of the recombinant viruses can be used as probes or for generating PCR primers.

L16 ANSWER 9 OF 10 USPATFULL
AN 2001:18000 USPATFULL
TI Restenosis/atherosclerosis diagnosis, prophylaxis and therapy
IN Epstein, Stephen E., Rockville, MD, United States
Finkel, Toren, Bethesda, MD, United States
Speir, Edith, Annandale, VA, United States
Zhou, Yi Fu, Bethesda, MD, United States
Zhu, Jianhui, Bethesda, MD, United States
Erdile, Lorne, Loudonville, NY, United States
Pincus, Steven, East Greenbush, NY, United States
PA Pasteur Merieux Serums et Vaccins, Lyons, France (non-U.S. corporation)
The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)
PI US 6183752 B1 20010206
AI US 1997-796101 19970205 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Mosher, Mary E.
LREP Frommer Lawrence & Haug LLP, Frommer, William S., Kowalski, Thomas J.
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 115 Drawing Figure(s); 102 Drawing Page(s)

LN.CNT 5767
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed and claimed are compositions and methods for therapy and/or prevention of restenosis and/or atherosclerosis. The compositions can include an agent for decreasing viral load of cytomegalovirus, such as an immunological composition or vaccine against cytomegalovirus (CMV) containing at least one epitope of interest of CMV and/or an expression system which expresses at least one epitope of interest of CMV. Such compositions can include at least one epitope of p53. Alternatively, the compositions can include at least one epitope of p53 and/or an expression system which expresses the epitope. The methods can include administering the compositions to a patient in need of such therapy and/or prevention. Additionally, compositions and methods for diagnosing atherosclerosis and/or restenosis, or susceptibility thereto, including screening a sample from a patient for antibodies to CMV and/or CMV proteins and/or screening a sample from a patient for specific viral proteins that predict whether the virus has been reactivated and/or antibodies thereto and/or detecting whether CMV nucleic acid, e.g., mRNA is present in peripheral blood monocytes (PBMCs) and/or detecting a cellular-mediated immune response to CMV peptides or proteins is present and/or HLA phenotyping and/or HLA genotyping. Embodiements can include a skin test.

L16 ANSWER 10 OF 10 USPATFULL
AN 1999:159495 USPATFULL
TI Recombinant poxvirus-cytomegalovirus, compositions and uses
IN Paoletti, Enzo, Delmar, NY, United States
Pincus, Steven E., East Greenbush, NY, United States
Cox, William I., Sand Lake, NY, United States
Kauffman, Elizabeth B., Averill Park, NY, United States
PA Connaught Laboratories, Swiftwater, PA, United States (U.S. corporation)
PI US 5997878 19991207
AI US 1996-658665 19960605 (8)
RLI Continuation-in-part of Ser. No. US 1995-471014, filed on 6 Jun 1995, now abandoned which is a continuation-in-part of Ser. No. US 1993-105483, filed on 13 Aug 1993, now patented, Pat. No. US 5494807 which is a continuation of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-713967, filed on 11 Jun 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US 658665 which is a continuation-in-part of Ser. No. US 1993-124668, filed on 21 Sep 1993, now patented, Pat. No. US 5482713 which is a division of Ser. No. US 1990-502834, filed on 4 Apr 1990, now patented, Pat. No. US 5338683 which is a continuation-in-part of Ser. No. US 1989-394488, filed on 16 Aug 1989, now abandoned which is a continuation-in-part of Ser. No. US 1989-339004, filed on 17 Apr 1989, now abandoned And Ser. No. US 1987-90209, filed on 27 Aug 1987, now abandoned which is a division of Ser. No. US 1984-622135, filed on 19 Jun 1984, now patented, Pat. No. US 4722848 which is a continuation-in-part of Ser. No. US 1982-446824, filed on 8 Dec 1982, now patented, Pat. No. US 4603112 which is a continuation-in-part of Ser. No. US 1987-334456, filed on 24 Dec 1987, now patented, Pat. No. US 4769330
DT Utility
FS Granted
EXNAM Primary Examiner: Mosher, Mary E.; Assistant Examiner: Salimi, Ali R.
LREP McDonnell, Boehnen, Hulbert & Berghoff
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN 99 Drawing Figure(s); 94 Drawing Page(s)
LN.CNT 9682
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Attenuated recombinant viruses containing DNA encoding an HCMV antigen, as well as methods and compositions employing the viruses, expression

products therefrom, and antibodies generated from the viruses or expression products, are disclosed and claimed. The recombinant viruses can be NYVAC or ALVAC recombinant viruses. The recombinant viruses and gene products therefrom and antibodies generated by the viruses and gene products have several preventive, therapeutic and diagnostic uses. The DNA of the recombinant viruses can be used as probes or for generating PCR primers.

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